

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of balancing data communications loads among data communications ports in systems for automated trading of securities, the systems including at least one broker-dealer system coupled through at least one data communications system to more than one market system, ~~the data communications system including a multiplicity of ports organized so that one market is coupled to the broker-dealer system through more than one port, the method operating as an adjunct to a broker-dealer system, the method applied when a new order from the broker-dealer system is available and ready to be sent through a port to a market, the method being applied continually in turn to each of the ports assigned to a market, the method comprising the steps of:~~

sending electronically a first order from a broker-dealer system to a market via a first port connected to said market, there being at least said first port and a second port connected between said broker-dealer and said market;

receiving through a said first port from a said market to which the first port is coupled an new acknowledgment of a said first order previously sent through the port from the broker-dealer system to the market;

sending the new acknowledgment from said first port to the broker-dealer system;

determining that the first port is not overloaded, the determination being dependent upon at least the previously sent first order, and the new acknowledgment; and optionally also dependent upon other previous orders and upon previous acknowledgments; and

sending a new second order through the first port to the market, the sending of the new second order being dependent upon the determination that the first port is not overloaded.

2. (Currently Amended) The method of claim 1 wherein determining that the first port is not overloaded comprises:

determining that a latency for the first port is less than a maximum allowed latency for the first port, wherein latency comprises a measure of the speed with which markets return acknowledgments for orders.

3. (Currently Amended) The method of claim 1 further comprising:

decrementing a net order count for the first port stored in a processor, wherein the net order count indicates the net number of orders sent through the first port to the market for which acknowledgments have not yet been received from the market, wherein the net order count is decremented after receiving a new acknowledgment.

4. (Currently Amended) The method of claim 3 further comprising the steps of:

determining that the net order count for the first port is less than a maximum allowed net order

count for the first port, wherein the maximum allowed net order count indicates the maximum number of orders without acknowledgments allowed to be sent through the first port, wherein the net order count being less than the maximum allowed net order count for the first port indicates that the first port is not overloaded; and incrementing the net order count after receiving a new order.

5. (Currently Amended) The method of claim 1 further comprising:

incrementing an acknowledgment count
for the first port stored in a processor, wherein the acknowledgment count represents the number of acknowledgments received through the first port during a defined period of time.

6. (Currently Amended) The method of claim 5 further comprising the steps of:

determining that an order count for the first port exceeds the acknowledgment count for the first port by at least a maximum allowed net order count, wherein the order count represents the number of orders sent through the first port during the defined period of time, wherein the maximum allowed net order count indicates the

maximum number of orders without acknowledgments allowed to be sent through the first port, wherein the order count for the port exceeding the acknowledgment count for the port by at least a maximum allowed net order count indicates that the port is not overloaded; and incrementing the order count for the first port.

7. (Currently Amended) The method of claim 1 further comprising determining, before sending the ~~new~~second order through the first port to the market, that the first port is a least-loaded port, wherein sending the order through the first port to the market is dependent upon determining that the first port is a least-loaded port.

8. (Currently Amended) The method of claim 7 further comprising: ~~wherein the port comprises~~

~~_____~~ -determining a net order count for said first port, wherein the net order count for the first port indicates the net number of orders sent through the first port to the market for which acknowledgments have not yet been received from the market, and any other ports coupled to the market also have net order counts, wherein determining that the first port is a least-loaded port comprises determining that the net order count for the first port is not greater than any of the net order counts for the other ports coupled to the market.

9. (Currently Amended) The method of claim 7 further comprising:

~~_____~~ -determining latency for said first port, wherein said latency comprises a measure of the speed with which markets return acknowledgments for orders, wherein ~~the~~ any other ports coupled to the market also have latencies, wherein determining that the first port is a least-loaded port comprises determining that the latency for the first port is not greater than any of the latencies for the other ports coupled to the market.

10. (Currently Amended) The method of claim 7 ~~wherein the port comprises~~ further comprising:

determine that the port is not overloaded, the determination being dependent at least upon the first previously sent order, and the new acknowledgment, and ~~optionally also dependent upon other~~

~~previous orders and upon previous acknowledgments; and~~

send a second new order through the port to the market, the sending of the new second order being dependent upon the determination that the port is not overloaded; and

store in said computer memory coupled to the processor, by the processor further programmed to store in the computer memory the new acknowledgment and the new second order.

12. (Currently Amended) The load balancing system of claim 11 wherein the processor programmed to determine that the port is not overloaded ~~comprises the processor programmed to~~ determines that a latency for the port is less than a maximum allowed latency for the port, wherein latency comprises a measure of the speed with which markets return acknowledgments for orders.

13. The load balancing system of claim 11 further comprising the processor being programmed to decrement a net order count for the port, wherein the net order count indicates the net number of orders sent through the port to the market for which acknowledgments have not yet been received from the market, wherein the net order count is decremented ~~after~~ in response to receiving a new acknowledgment.

14.- (Currently Amended) The load balancing system of claim 13 further comprising the processor being programmed

to:

determine that the net order count for the port is less than a maximum allowed net order count for the port, wherein the maximum allowed net order count for the port indicates the maximum number of orders allowed to be sent through the port without corresponding acknowledgments ~~allowed to be sent through the port~~, wherein the net order count being less than the maximum allowed net order count for the port indicates that the port is not overloaded; and

increment the net order count upon an order being sent through said port after said determination that the net order count for the port is less than the maximum allowed net order count for the port.

15. (Currently Amended) The load balancing system of claim 11 further comprising the processor being programmed to increment an acknowledgment count for the port, wherein the acknowledgment count represents the number of acknowledgments received through the port during a defined period of time.

16. (Currently Amended) The load balancing system of claim 15 further comprising the processor being programmed

to:

determine that an order count for the port exceeds the acknowledgment count for the port by at least a maximum allowed net order count, wherein the order count represents the number of orders sent through the port during the defined period of time, wherein the maximum allowed net order count indicates the maximum number of orders without acknowledgments allowed to be sent through the port, wherein the order count for the port exceeding the acknowledgment count for the port by at least a maximum allowed net order count indicates that the port is not overloaded; and
increment the order count for the port.

17. (Currently Amended) The load balancing system of claim 11 further comprising the processor programmed to determine, before sending the ~~new~~ second order through the port to the market, that the port is a least-loaded port, wherein sending the second order through the port to the market is dependent upon the determination that the port is a least-loaded port.

18. (Currently Amended) The load balancing system of claim 17 wherein a data structure for the port maintained in one of said processors comprises a net order count for the port, wherein the net order count indicates the net number of orders sent through the port to the market for

which acknowledgments have not yet been received from the market, and other ports coupled to the market also have data structures maintained in said processors and having net order counts, wherein the processor programmed to determine that the port is a least-loaded port ~~comprises the processor also is~~ programmed to determine that the net order count for the port is not greater than any of the net order counts for the other ports coupled to the market.

19. (Currently Amended) The load balancing system of claim 17 wherein a data structure for the port maintained in one of said processors comprises latency, wherein latency comprises a measure of the speed with which markets return acknowledgments for orders, wherein the other ports coupled to the market have data structures having latencies, wherein the processor programmed to determine that the port is a least-loaded port also is ~~comprises the processor~~ programmed to determine that the latency for the port is not greater than any of the latencies for ~~the any~~ other ports coupled to the market.

20. (Currently Amended) The load balancing system of claim 17 wherein a data structure for the port maintained in said processors comprises a net order count and a latency, wherein the net order count indicates the net number of orders sent through the port to the market for which acknowledgments have not yet been received from the market, wherein latency comprises a measure of the speed with which markets return acknowledgments for orders, wherein ~~the any~~ other ports coupled to the market have data structures having comprising net order counts and latencies, wherein the processor programmed to determine that the port is a least-loaded port ~~comprises the processor also is~~ programmed to determine that the product of the net order count for the port multiplied by the latency for the port is not greater than the product of net order count and latency for any other port coupled to the market.

21. (New) The method of claim 1, said determination being made upon at least the presence of the first order, and the presence of the acknowledgment.

22. (New) The system of claim 11, wherein determining that the port is not overloaded is dependent at least upon the presence of the first order, and the presence of the acknowledgment.